

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-006088**Date Inspected:** 03-Mar-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Fabrication**Summary of Items Observed:**

CWI Inspectors Mr. Xu Lefeng, Mr. Wu Ming Kai, Mr. Chen Ying Xin

On this date CALTRANS OSM Quality Assurance (QA) Inspector Mr. Paul Dawson arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

**Tower Bay 11**

ZPMC QC informed QA personnel that ZPMC QC has visually accepted the welds between stiffener plates and lift #2 west skin plate B and these welds are ready for QA visual inspections. The QA Inspector performed random final visual inspections of these welds. The QA Inspector observed ZPMC and ABF representatives had marked all these welds as being visually acceptable. The QA Inspector observed approximately thirty locations where the various welds had tightly adhering layers of grinding debris, arc strikes, weld pits, weld underfill and other areas that the QA Inspector identified as not being in compliance with project specifications. ZPMC QC personnel had all of these areas ground or weld repaired. Following grinding and welding repairs, the welds that were visually inspected by this QA Inspector appear to comply with project specifications and the QA Inspector indicated lot number B254-009 along with a triangle adjacent to where QC had indicated the skin plate to stiffener welds were visually acceptable.

**Tower Bay 10**

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## WELDING INSPECTION REPORT

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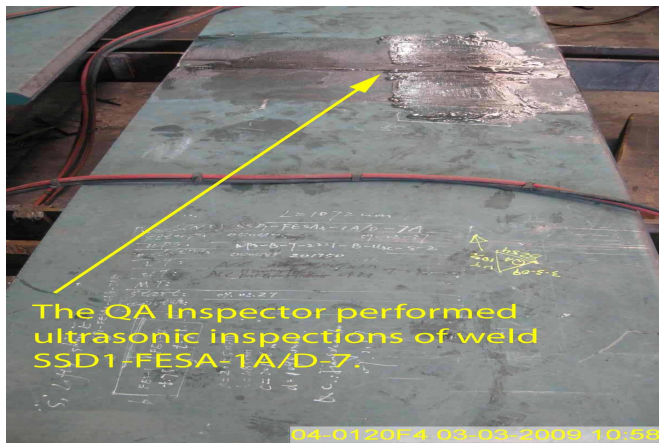
This QA Inspector performed random ultrasonic (UT) inspections of approximately 10 percent length of South Tower Lift 3 Skin plate A butt weld SSD1-FESA-1A/D-7. This weld had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the weld that was ultrasonically inspected by this QA Inspector appears to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

This QA Inspector performed random ultrasonic (UT) inspections of approximately 10 percent length of North Tower Lift 2 Skin C stiffener to skin plate weld NSD1-SA171-B/D-2. This weld had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the weld that was ultrasonically inspected by this QA Inspector appears to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

This QA Inspector observed ZPMC welder Mr. Jin Xiao Gang, stencil 053474 is the using flux cored welding process to make stiffener plate repairs to tower skin plate NSD1-SA171-A/D-12A. The QA Inspector observed the base material had been preheated using an electrical heater element. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

### Heavy Bay 12

This QA Inspector observed ZPMC welder Mr. Xu Guoyin, stencil 059443 is using flux cored welding procedure WPS-345-FCAW-2G(2F)-Repair-1 to make stiffener plate repairs to OBG deck plate DP696-001 closed rib welds. The QA Inspector observed the base material had been preheated using a torch. The QA Inspector observed ZPMC Quality Control Inspector Mr. Lijie monitoring this welding. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.



### Summary of Conversations:

See above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod phone: 134-8257-0045 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Dawson,Paul	Quality Assurance Inspector
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<b>Reviewed By:</b>	Clifford,William	QA Reviewer
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